

Report No.:

Test Time: 2022/8/29 11:35

Luminaire Property

Luminaire Manufacturer:

Luminaire Category: PNS230SMBK

Luminous Length (mm): 602

Luminous Height (mm): 35

Current: 0.478 A

Power Factor: 1.000

Luminaire Description: PNS230SMBK

Luminous Width (mm): 25

Voltage: 24.0 V

Power: 11.47 W

Photometric Results

CIE Class: Semi-Direct

Measurement Flux: 863.6 lm

Downward Ratio: 79%

Horizontal Diffuse Angle(10%,50%): H305.5,H154.4

Vertical Diffuse Angle(10%,50%): V261.7,V133.7

Luminaire Efficacy Rating (LER): 75

Max. Intensity: 175.39 cd

Total Rated Lamp Lumens: 863.6 lm

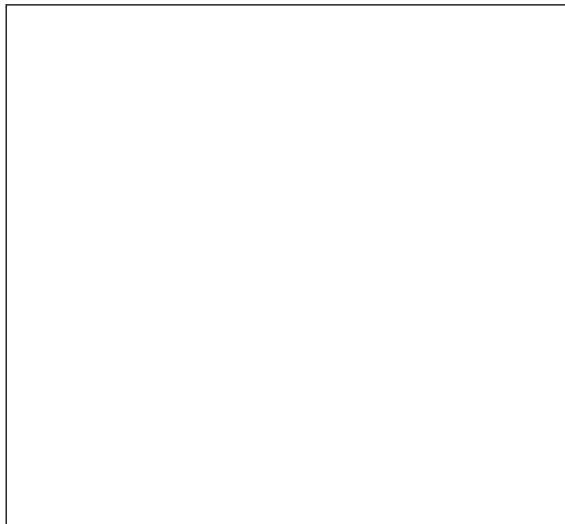
Efficiency: 100%

Upward Ratio: 21%

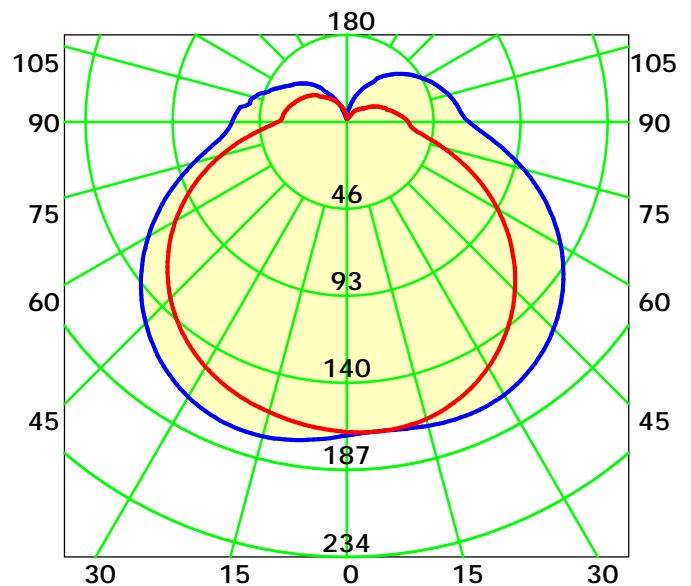
Central Intensity: 168.88 cd

Pos of Max. Intensity: H180 V17

Picture Of Luminaire



Luminous Intensity Distribution Curve



Average Diffuse Angle(50%): 144.0° Unit: cd

— C0-C180 — C90-C270

C Plane (°):0.0-360.0: 30.0

Test Lab:

Test Type: TYPE C

Temperature: 25

Operator: Jacky

Gamma Plane (°):0.0-180.0: 1.0

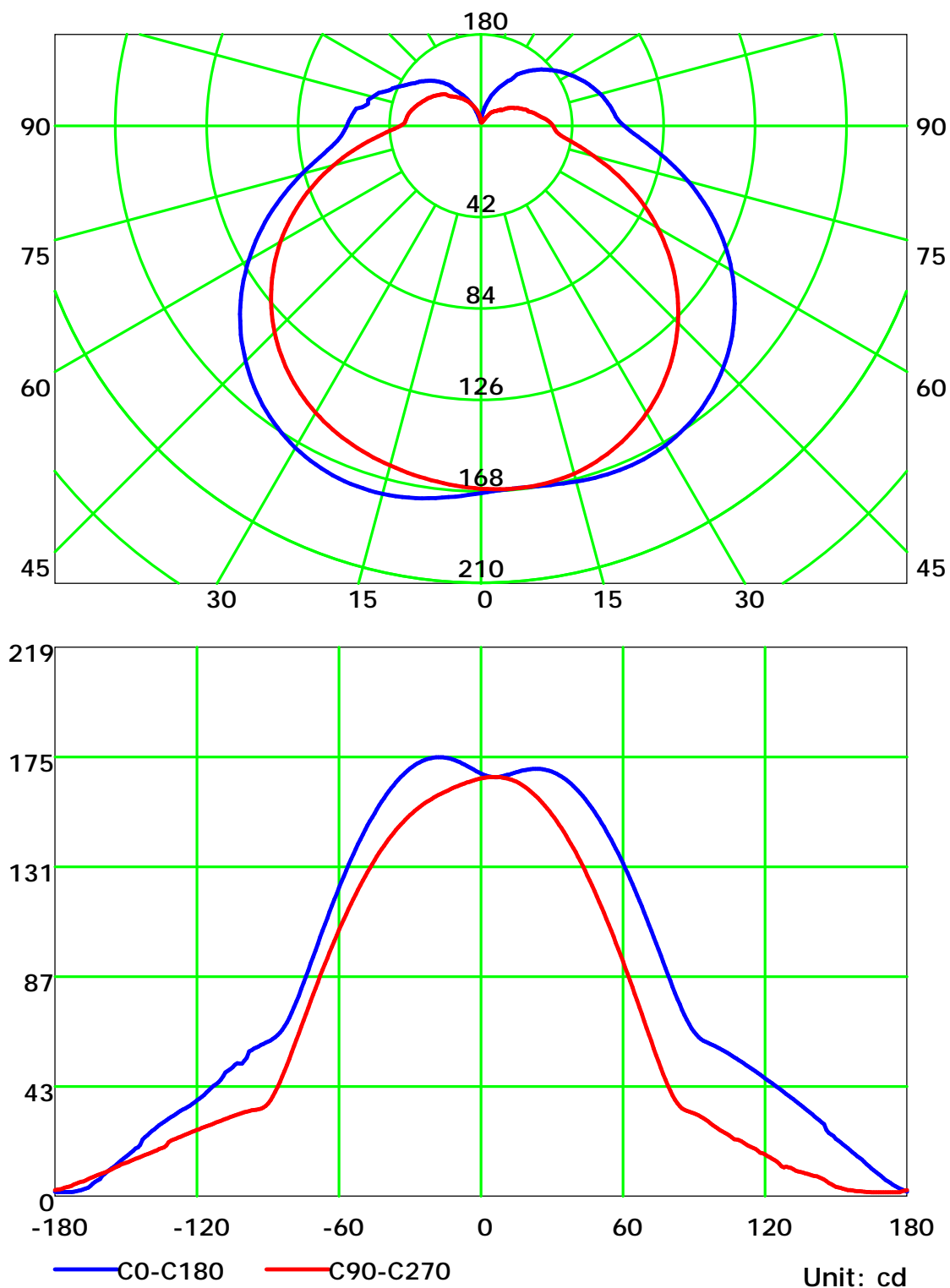
Test Device: GPM-1800B

Distance: 9.028 m

Humidity: 60%

Inspector:

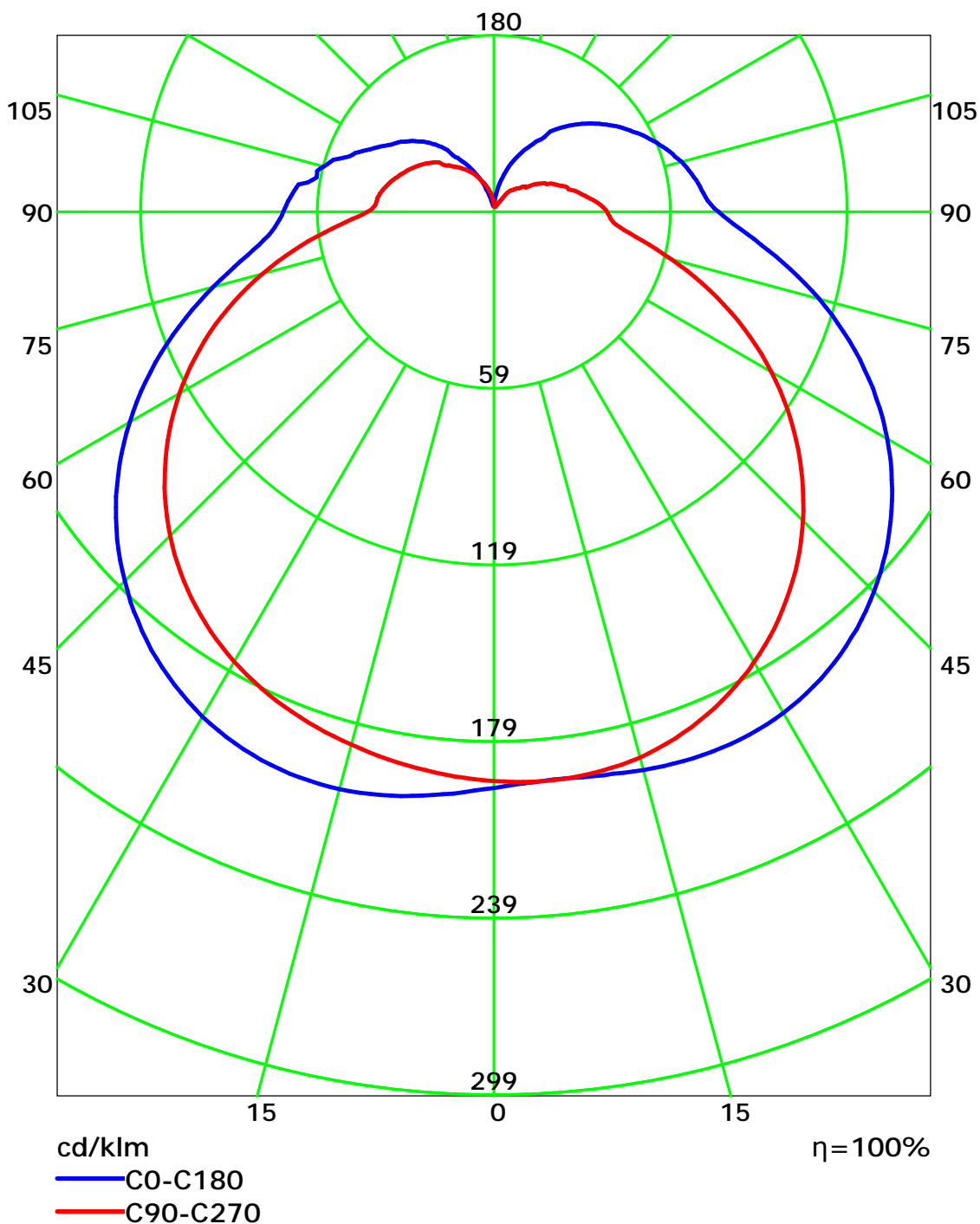
Luminous Intensity Distribution Curve



C Plane (°):0.0-360.0: 30.0
Test Lab:
Test Type: TYPE C
Temperature: 25
Operator: Jacky

Gamma Plane (°):0.0-180.0:1.0
Test Device: GPM-1800B
Distance: 9.028 m
Humidity: 60%
Inspector:

Luminous Intensity Distribution Curve(cd/klm)



C Plane (°):0.0-360.0: 30.0
Test Lab:
Test Type: TYPE C
Temperature: 25
Operator: Jacky

Gamma Plane (°):0.0-180.0:1.0
Test Device: GPM-1800B
Distance: 9.028 m
Humidity: 60%
Inspector:

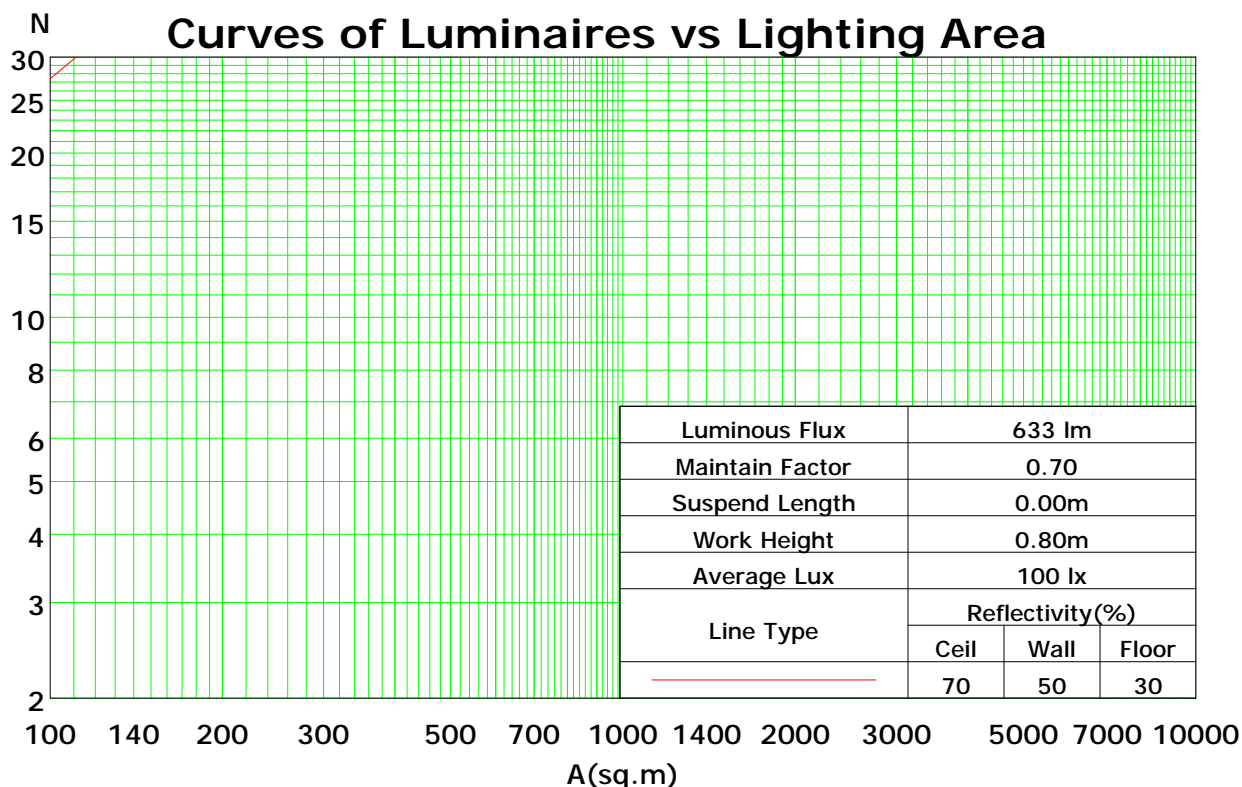
Coefficients Of Utilization - Zonal Cavity Method

| | | | | | | | | | | | | | | | | | | |
|-----|----------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|
| RC | 0.8 | 0.8 | 0.8 | 0.8 | 0.7 | 0.7 | 0.7 | 0.7 | 0.5 | 0.5 | 0.5 | 0.3 | 0.3 | 0.3 | 0.1 | 0.1 | 0.1 | 0 |
| RW | 0.7 | 0.5 | 0.3 | 0.1 | 0.7 | 0.5 | 0.3 | 0.1 | 0.5 | 0.3 | 0.1 | 0.5 | 0.3 | 0.1 | 0.5 | 0.3 | 0.1 | 0 |
| RCR | RF = 0.2 | | | | | | | | | | | | | | | | | |
| 0 | 114 | 114 | 114 | 114 | 109 | 109 | 109 | 109 | 100 | 100 | 100 | 91 | 91 | 91 | 83 | 83 | 83 | 79 |
| 1 | 101 | 95 | 90 | 86 | 96 | 91 | 86 | 82 | 83 | 79 | 76 | 75 | 72 | 70 | 69 | 66 | 64 | 60 |
| 2 | 91 | 82 | 74 | 67 | 86 | 78 | 71 | 65 | 71 | 65 | 60 | 64 | 60 | 56 | 58 | 55 | 52 | 48 |
| 3 | 82 | 71 | 62 | 55 | 78 | 68 | 59 | 53 | 62 | 55 | 49 | 56 | 50 | 46 | 51 | 46 | 42 | 39 |
| 4 | 75 | 62 | 53 | 46 | 71 | 59 | 51 | 44 | 54 | 47 | 41 | 49 | 43 | 38 | 45 | 40 | 36 | 33 |
| 5 | 69 | 55 | 46 | 39 | 65 | 53 | 44 | 37 | 48 | 41 | 35 | 44 | 38 | 33 | 40 | 35 | 31 | 28 |
| 6 | 63 | 49 | 40 | 33 | 60 | 47 | 38 | 32 | 43 | 36 | 30 | 39 | 33 | 28 | 36 | 31 | 26 | 24 |
| 7 | 58 | 44 | 35 | 29 | 55 | 42 | 34 | 28 | 39 | 32 | 26 | 36 | 29 | 25 | 33 | 27 | 23 | 21 |
| 8 | 54 | 40 | 31 | 25 | 51 | 39 | 30 | 25 | 35 | 28 | 23 | 33 | 26 | 22 | 30 | 25 | 21 | 18 |
| 9 | 50 | 37 | 28 | 23 | 48 | 35 | 27 | 22 | 33 | 26 | 21 | 30 | 24 | 20 | 28 | 22 | 18 | 16 |
| 10 | 47 | 34 | 26 | 20 | 45 | 32 | 25 | 20 | 30 | 23 | 19 | 28 | 22 | 18 | 26 | 20 | 17 | 15 |

Spacing Criteria (0-180): 1.50

Spacing Criteria (90-270): 1.36

Spacing Criteria (Diagonal): 1.53



C Plane (°):0.0-360.0: 30.0

Test Lab:

Test Type: TYPE C

Temperature: 25

Operator: Jacky

Gamma Plane (°):0.0-180.0:1.0

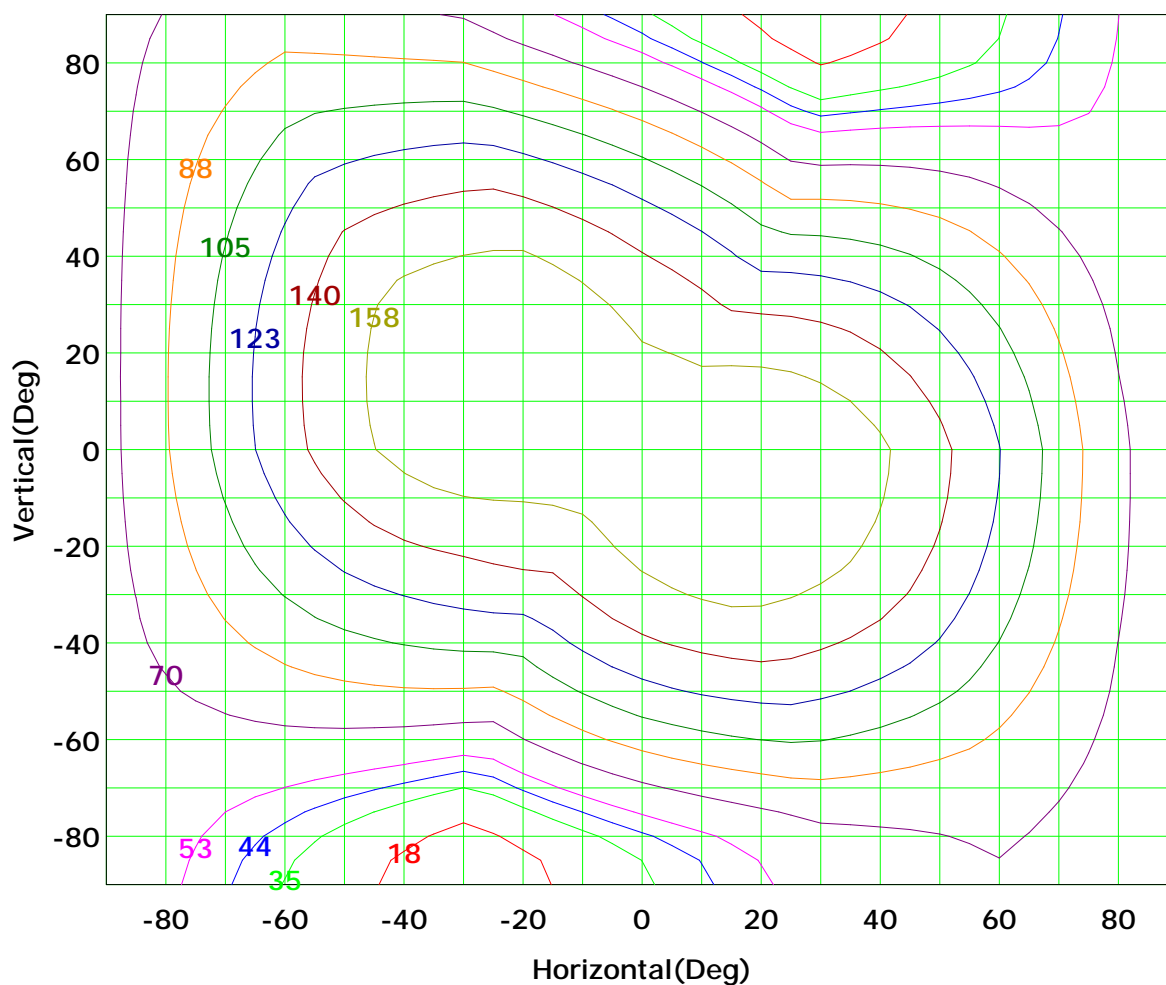
Test Device: GPM-1800B

Distance: 9.028 m

Humidity: 60%

Inspector:

Isocandela (rectangle)



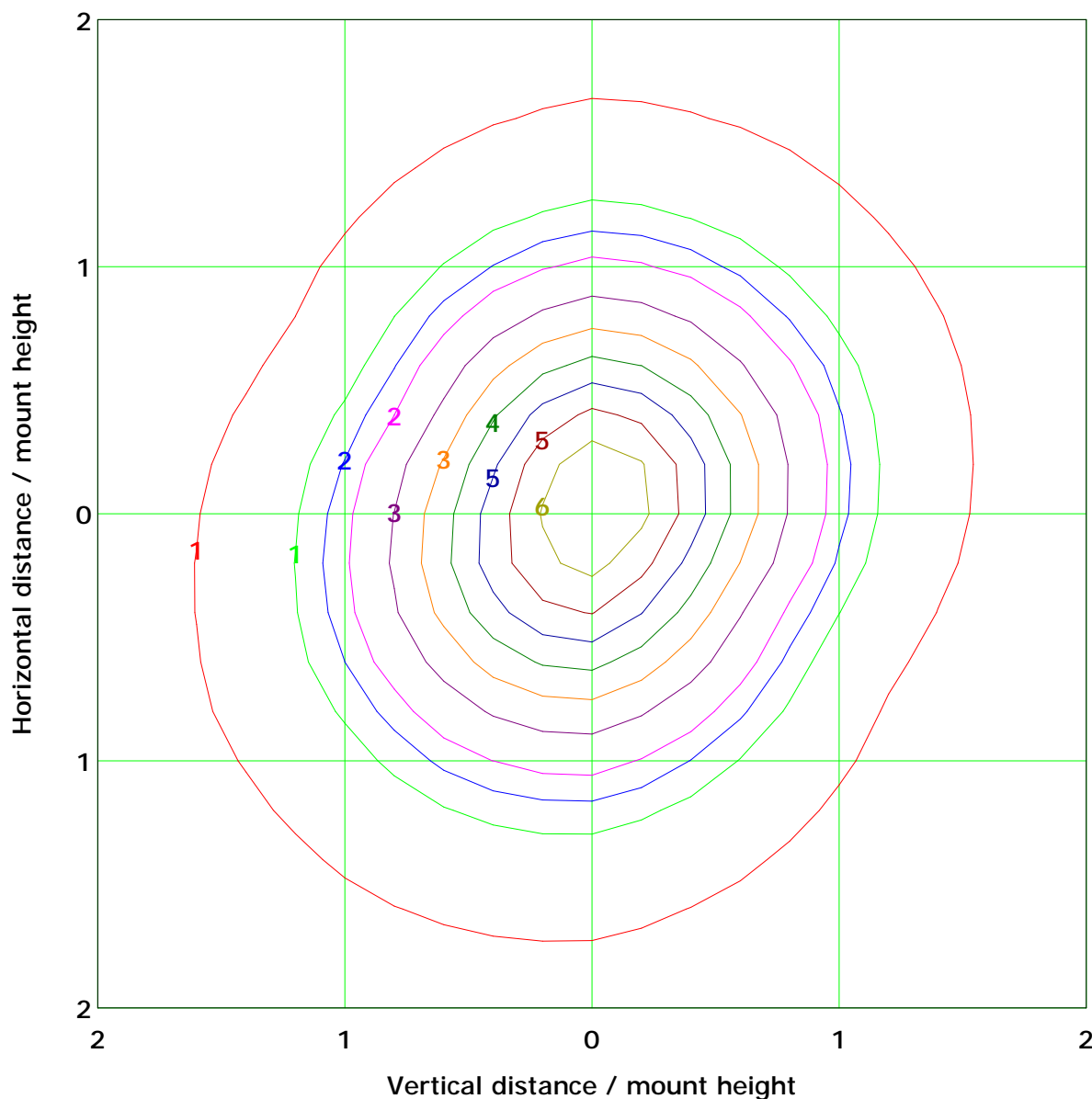
I_{max} (100%): 175 cd

| | | | |
|---------|--------|---------|--------|
| (10%): | 18 cd | (20%): | 35 cd |
| (25%): | 44 cd | (30%): | 53 cd |
| (40%): | 70 cd | (50%): | 88 cd |
| (60%): | 105 cd | (70%): | 123 cd |
| (80%): | 140 cd | (90%): | 158 cd |

C Plane (°):0.0-360.0: 30.0
Test Lab:
Test Type: TYPE C
Temperature: 25
Operator: Jacky

Gamma Plane (°):0.0-180.0:1.0
Test Device: GPM-1800B
Distance: 9.028 m
Humidity: 60%
Inspector:

IsoLux Plot



Mounting Height: 5.0m Max Lux(100%): 6.8 lx

| | |
|----------------|----------------|
| (10%): 0.7 lx | (20%): 1.4 lx |
| (25%): 1.7 lx | (30%): 2.0 lx |
| (40%): 2.7 lx | (50%): 3.4 lx |
| (60%): 4.1 lx | (70%): 4.8 lx |
| (80%): 5.4 lx | (90%): 6.1 lx |

C Plane (°):0.0-360.0: 30.0
Test Lab:
Test Type: TYPE C
Temperature: 25
Operator: Jacky

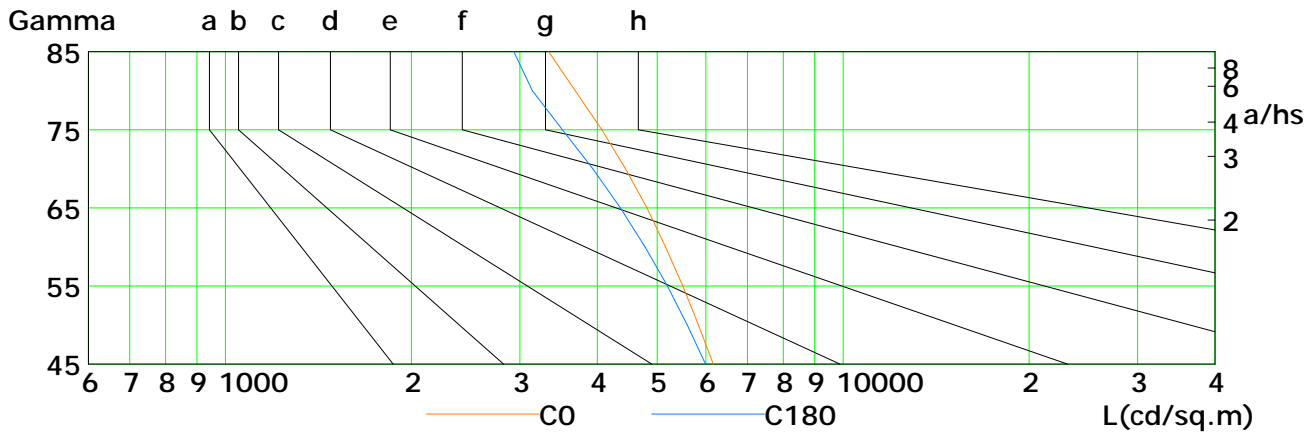
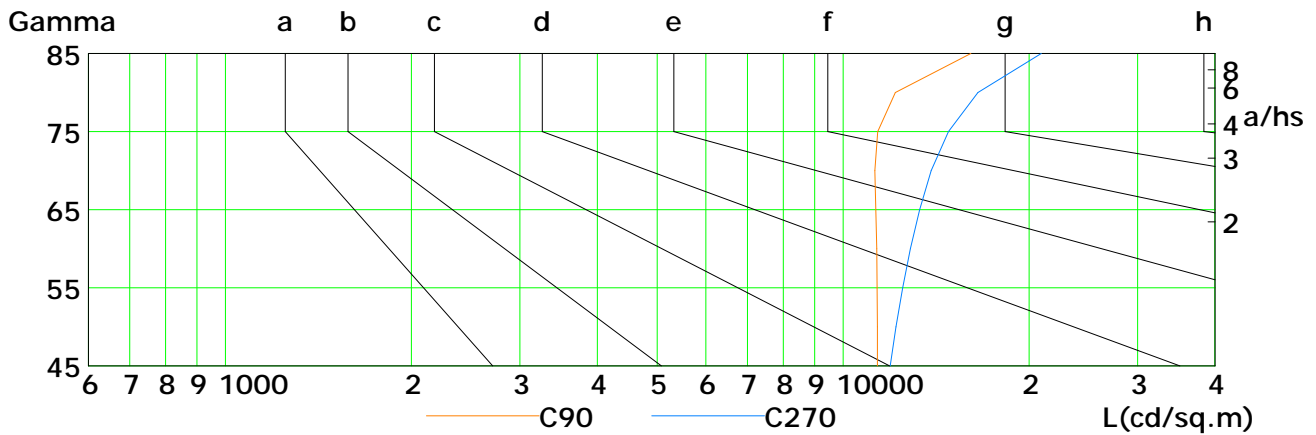
Gamma Plane (°):0.0-180.0:1.0
Test Device: GPM-1800B
Distance: 9.028 m
Humidity: 60%
Inspector:



Lum Limit Curve

| Dazzle | Quality | Illuminance (lx) | | | | | | | |
|--------|---------|------------------|------|------|-------|-------|-------|-------|-------|
| 1.15 | A | 2000 | 1000 | 500 | <=300 | | | | |
| 1.50 | B | | 2000 | 1000 | 500 | <=300 | | | |
| 1.85 | C | | | 2000 | 1000 | 500 | <=300 | | |
| 2.20 | D | | | | 2000 | 1000 | 500 | <=300 | |
| 2.55 | E | | | | | 2000 | 1000 | 500 | <=300 |

a b c d e f g h

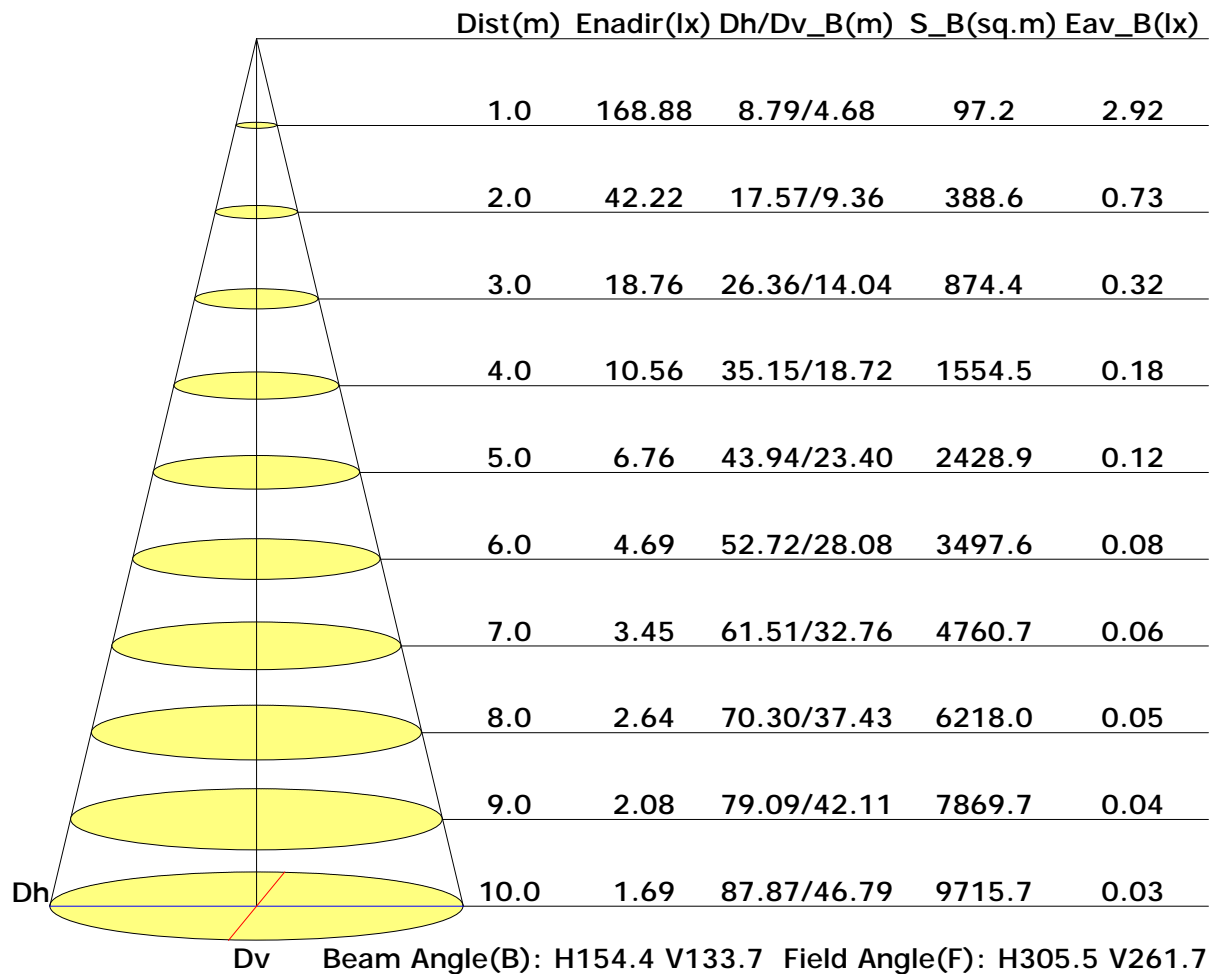


| L(cd/sq.m) | G45 | G50 | G55 | G60 | G65 | G70 | G75 | G80 | G85 |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| C0 | 6167 | 5837 | 5502 | 5163 | 4816 | 4447 | 4071 | 3686 | 3337 |
| C90 | 11372 | 11367 | 11360 | 11337 | 11299 | 11262 | 11375 | 12149 | 16099 |
| C180 | 5991 | 5595 | 5195 | 4783 | 4364 | 3935 | 3515 | 3140 | 2931 |
| C270 | 11921 | 12184 | 12485 | 12847 | 13299 | 13899 | 14813 | 16535 | 20949 |

C Plane (°):0.0-360.0: 30.0
Test Lab:
Test Type: TYPE C
Temperature: 25
Operator: Jacky

Gamma Plane (°):0.0-180.0:1.0
Test Device: GPM-1800B
Distance: 9.028 m
Humidity: 60%
Inspector:

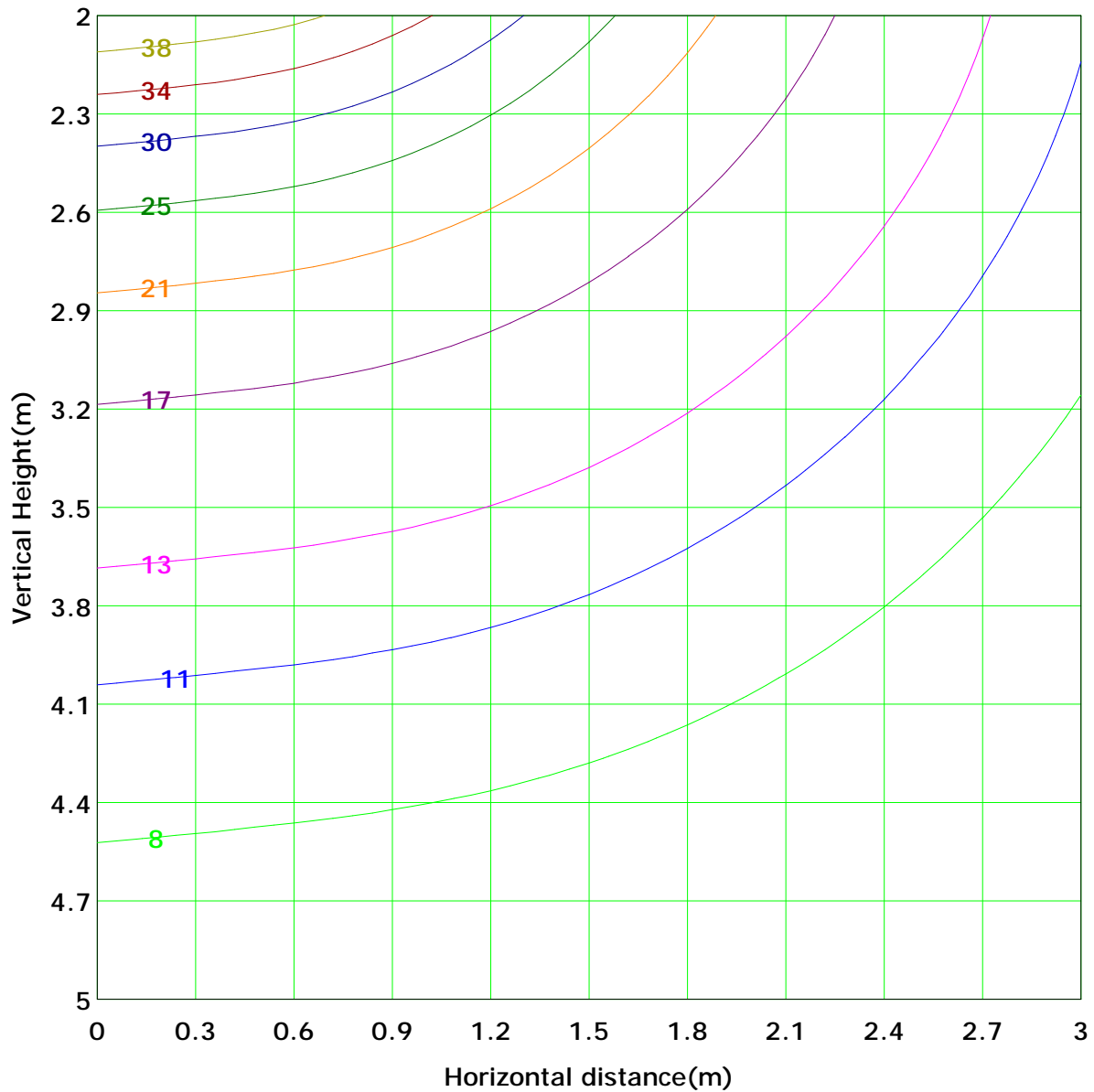
Illuminance at a Distance



C Plane (°):0.0-360.0: 30.0
Test Lab:
Test Type: TYPE C
Temperature: 25
Operator: Jacky

Gamma Plane (°):0.0-180.0:1.0
Test Device: GPM-1800B
Distance: 9.028 m
Humidity: 60%
Inspector:

Vertical IsoLux Plot



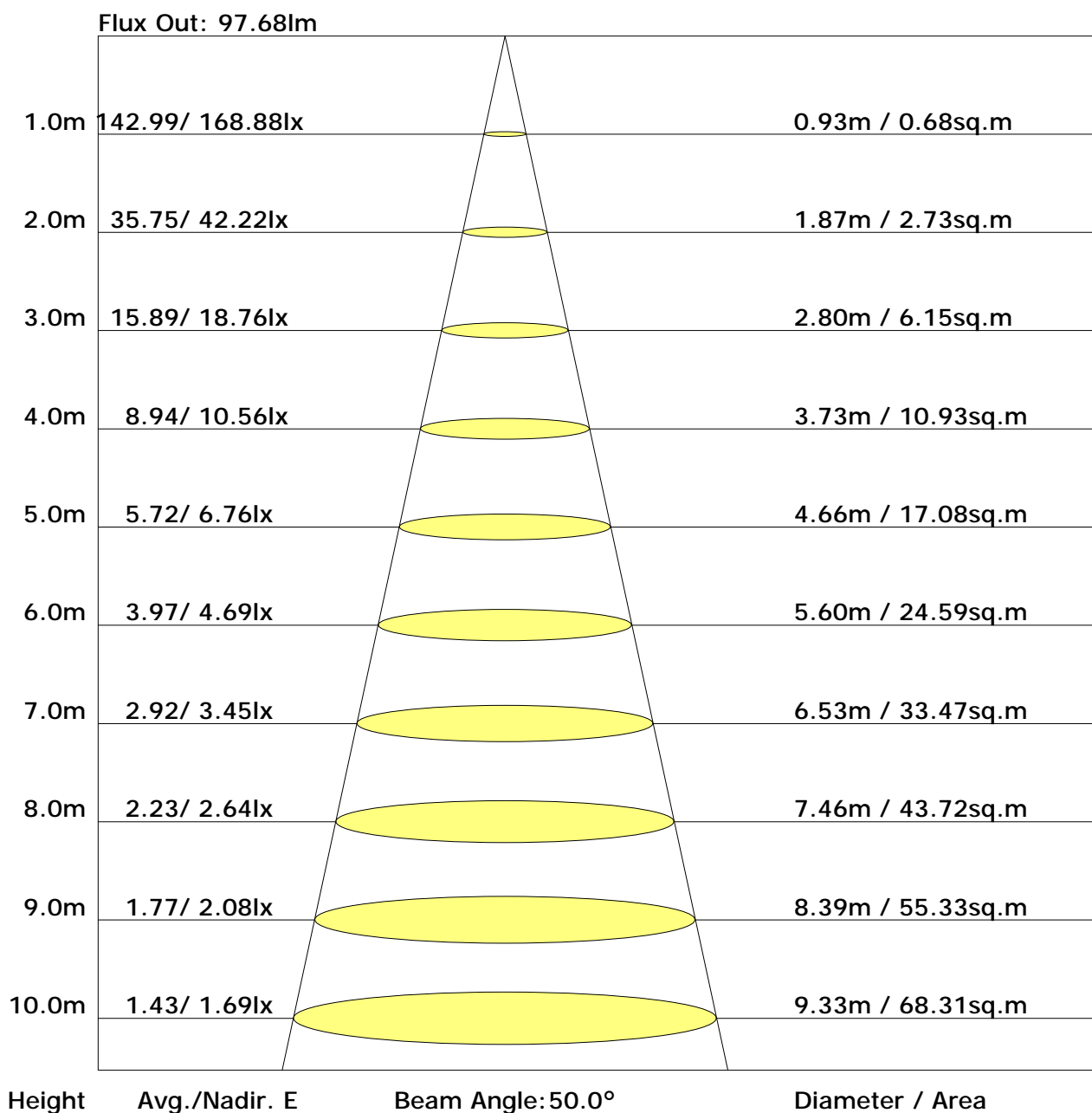
| | | |
|-----------------|------------------|------------------|
| Lowest(m): 2.0m | Highest(m): 5.0m | Max Lux: 42.2 lx |
| (10%): 4.2 lx | (20%): 8.4 lx | |
| (25%): 10.6 lx | (30%): 12.7 lx | |
| (40%): 16.9 lx | (50%): 21.1 lx | |
| (60%): 25.3 lx | (70%): 29.6 lx | |
| (80%): 33.8 lx | (90%): 38.0 lx | |

C Plane (°):0.0-360.0: 30.0
Test Lab:
Test Type: TYPE C
Temperature: 25
Operator: Jacky

Gamma Plane (°):0.0-180.0:1.0
Test Device: GPM-1800B
Distance: 9.028 m
Humidity: 60%
Inspector:

Gamma Plane (°):0.0-180.0:1.0
Test Device: GPM-1800B
Distance: 9.028 m
Humidity: 60%
Inspector:

The Average Illuminance Effective Figure



C Plane (°): 0.0-360.0: 30.0
Test Lab:
Test Type: TYPE C
Temperature: 25
Operator: Jacky

Gamma Plane (°): 0.0-180.0: 1.0
Test Device: GPM-1800B
Distance: 9.028 m
Humidity: 60%
Inspector:

UGR Table

| | | | | | | | | | | |
|------------------|------------------|------|------|------|------|----------------|------|------|------|------|
| Reflectance: | | | | | | | | | | |
| Ceiling (cavity) | 0.7 | 0.7 | 0.5 | 0.5 | 0.3 | 0.7 | 0.7 | 0.5 | 0.5 | 0.3 |
| Wall | 0.5 | 0.3 | 0.5 | 0.3 | 0.3 | 0.5 | 0.3 | 0.5 | 0.3 | 0.3 |
| Reference plane | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| Room dimensions | Viewed crosswise | | | | | Viewed endwise | | | | |
| X=2H Y=2H | 19.4 | 20.7 | 20.0 | 21.4 | 22.2 | 15.5 | 16.8 | 16.1 | 17.5 | 18.2 |
| 3H | 22.1 | 23.3 | 22.8 | 24.0 | 24.8 | 17.1 | 18.3 | 17.8 | 19.0 | 19.8 |
| 4H | 23.5 | 24.6 | 24.1 | 25.3 | 26.1 | 17.7 | 18.9 | 18.4 | 19.6 | 20.4 |
| 6H | 24.8 | 25.9 | 25.5 | 26.6 | 27.5 | 18.2 | 19.3 | 18.9 | 20.0 | 20.8 |
| 8H | 25.5 | 26.6 | 26.2 | 27.3 | 28.1 | 18.4 | 19.5 | 19.1 | 20.2 | 21.0 |
| 12H | 26.3 | 27.3 | 27.0 | 28.0 | 28.9 | 18.6 | 19.6 | 19.3 | 20.3 | 21.2 |
| X=4H Y=2H | 19.7 | 20.8 | 20.4 | 21.5 | 22.4 | 16.4 | 17.5 | 17.0 | 18.2 | 19.0 |
| 3H | 22.6 | 23.6 | 23.3 | 24.3 | 25.2 | 18.2 | 19.2 | 18.9 | 19.9 | 20.7 |
| 4H | 24.1 | 25.0 | 24.8 | 25.7 | 26.6 | 18.9 | 19.8 | 19.6 | 20.5 | 21.4 |
| 6H | 25.6 | 26.4 | 26.3 | 27.2 | 28.1 | 19.5 | 20.3 | 20.2 | 21.1 | 22.0 |
| 8H | 26.4 | 27.2 | 27.1 | 27.9 | 28.8 | 19.8 | 20.5 | 20.5 | 21.3 | 22.2 |
| 12H | 27.3 | 28.0 | 28.0 | 28.7 | 29.6 | 20.0 | 20.7 | 20.8 | 21.5 | 22.4 |
| X=8H Y=4H | 24.3 | 25.0 | 25.0 | 25.8 | 26.7 | 19.5 | 20.3 | 20.3 | 21.1 | 21.9 |
| 6H | 25.9 | 26.6 | 26.7 | 27.4 | 28.2 | 20.3 | 21.0 | 21.1 | 21.8 | 22.7 |
| 8H | 26.8 | 27.4 | 27.6 | 28.2 | 29.1 | 20.7 | 21.3 | 21.5 | 22.1 | 23.0 |
| 12H | 27.8 | 28.3 | 28.6 | 29.1 | 30.1 | 21.1 | 21.6 | 21.8 | 22.4 | 23.3 |
| X=12H Y=4H | 24.3 | 25.0 | 25.0 | 25.7 | 26.6 | 19.7 | 20.4 | 20.5 | 21.2 | 22.1 |
| 6H | 25.9 | 26.5 | 26.7 | 27.3 | 28.2 | 20.6 | 21.2 | 21.4 | 21.9 | 22.9 |
| 8H | 26.9 | 27.4 | 27.7 | 28.2 | 29.2 | 21.0 | 21.6 | 21.8 | 22.3 | 23.3 |

Calculate in accordance with CIE 190:2010

C Plane (°):0.0-360.0: 30.0
Test Lab:
Test Type: TYPE C
Temperature: 25
Operator: Jacky

Gamma Plane (°):0.0-180.0:1.0
Test Device: GPM-1800B
Distance: 9.028 m
Humidity: 60%
Inspector:

Utilisation Factor Table(Floor cavity)

| Utilisation Factors UF(F) | | | SHR NOM = 1.50 | | | | | | | | | |
|--|------|-------|----------------|------|------|------|------|------|------|------|------|--|
| Room Reflectance | | | Room Index(RI) | | | | | | | | | |
| Ceiling | Wall | Floor | 0.75 | 1.00 | 1.25 | 1.50 | 2.00 | 2.50 | 3.00 | 4.00 | 5.00 | |
| 0.70 | 0.50 | 0.20 | 0.48 | 0.56 | 0.63 | 0.68 | 0.76 | 0.81 | 0.84 | 0.89 | 0.92 | |
| | 0.30 | | 0.40 | 0.48 | 0.55 | 0.61 | 0.69 | 0.74 | 0.78 | 0.84 | 0.88 | |
| | 0.20 | | 0.35 | 0.42 | 0.49 | 0.55 | 0.63 | 0.69 | 0.73 | 0.80 | 0.84 | |
| 0.50 | 0.50 | 0.20 | 0.45 | 0.52 | 0.58 | 0.63 | 0.69 | 0.74 | 0.77 | 0.81 | 0.84 | |
| | 0.30 | | 0.38 | 0.45 | 0.52 | 0.57 | 0.64 | 0.69 | 0.72 | 0.77 | 0.81 | |
| | 0.20 | | 0.33 | 0.40 | 0.46 | 0.51 | 0.59 | 0.64 | 0.68 | 0.74 | 0.78 | |
| 0.30 | 0.50 | 0.20 | 0.41 | 0.48 | 0.53 | 0.58 | 0.63 | 0.67 | 0.70 | 0.74 | 0.77 | |
| | 0.30 | | 0.36 | 0.42 | 0.48 | 0.52 | 0.59 | 0.63 | 0.66 | 0.71 | 0.74 | |
| | 0.20 | | 0.31 | 0.37 | 0.44 | 0.48 | 0.55 | 0.60 | 0.63 | 0.68 | 0.72 | |
| 0.00 | 0.00 | 0.00 | 0.27 | 0.32 | 0.38 | 0.42 | 0.48 | 0.52 | 0.55 | 0.59 | 0.62 | |
| Rating: 11W Photometrically tested without ceiling board. Multiply UF values by service correction factors Calculate in accordance with CIBSE Technical Memorandum NO.5 1980 | | | | | | | | | | | | |

Utilisation Factor Table(Wall)

| Utilisation Factors UF(W) | | | SHR NOM = 1.50 | | | | | | | | | |
|--|------|-------|----------------|------|------|------|------|------|------|------|------|--|
| Room Reflectance | | | Room Index(RI) | | | | | | | | | |
| Ceiling | Wall | Floor | 0.75 | 1.00 | 1.25 | 1.50 | 2.00 | 2.50 | 3.00 | 4.00 | 5.00 | |
| 0.70 | 0.50 | 0.20 | 1.01 | 0.87 | 0.75 | 0.67 | 0.55 | 0.46 | 0.40 | 0.32 | 0.27 | |
| | 0.30 | | 0.84 | 0.75 | 0.66 | 0.59 | 0.49 | 0.43 | 0.37 | 0.30 | 0.26 | |
| | 0.20 | | 0.72 | 0.65 | 0.58 | 0.53 | 0.45 | 0.39 | 0.35 | 0.29 | 0.24 | |
| 0.50 | 0.50 | 0.20 | 0.93 | 0.80 | 0.69 | 0.61 | 0.50 | 0.45 | 0.37 | 0.30 | 0.25 | |
| | 0.30 | | 0.79 | 0.70 | 0.61 | 0.55 | 0.46 | 0.40 | 0.35 | 0.28 | 0.24 | |
| | 0.20 | | 0.68 | 0.61 | 0.55 | 0.50 | 0.42 | 0.37 | 0.33 | 0.27 | 0.23 | |
| 0.30 | 0.50 | 0.20 | 0.86 | 0.74 | 0.64 | 0.56 | 0.46 | 0.39 | 0.34 | 0.28 | 0.23 | |
| | 0.30 | | 0.73 | 0.65 | 0.57 | 0.51 | 0.43 | 0.37 | 0.32 | 0.26 | 0.22 | |
| | 0.20 | | 0.64 | 0.58 | 0.52 | 0.47 | 0.40 | 0.35 | 0.31 | 0.25 | 0.21 | |
| 0.00 | 0.00 | 0.00 | 0.52 | 0.47 | 0.41 | 0.37 | 0.31 | 0.27 | 0.24 | 0.20 | 0.17 | |
| Rating: 11W Photometrically tested without ceiling board. Multiply UF values by service correction factors Calculate in accordance with CIBSE Technical Memorandum NO.5 1980 | | | | | | | | | | | | |

Utilisation Factor Table(Ceiling cavity)

| Utilisation Factors UF(C) | | | SHR NOM = 1.50 | | | | | | | | | |
|--|------|-------|----------------|------|------|------|------|------|------|------|------|--|
| Room Reflectance | | | Room Index(RI) | | | | | | | | | |
| Ceiling | Wall | Floor | 0.75 | 1.00 | 1.25 | 1.50 | 2.00 | 2.50 | 3.00 | 4.00 | 5.00 | |
| 0.70 | 0.50 | 0.20 | 0.37 | 0.38 | 0.39 | 0.40 | 0.40 | 0.41 | 0.41 | 0.42 | 0.42 | |
| | 0.30 | | 0.30 | 0.31 | 0.33 | 0.33 | 0.35 | 0.36 | 0.37 | 0.38 | 0.39 | |
| | 0.20 | | 0.25 | 0.26 | 0.28 | 0.29 | 0.30 | 0.32 | 0.33 | 0.35 | 0.36 | |
| 0.50 | 0.50 | 0.20 | 0.36 | 0.37 | 0.38 | 0.38 | 0.39 | 0.39 | 0.40 | 0.40 | 0.40 | |
| | 0.30 | | 0.29 | 0.31 | 0.32 | 0.33 | 0.34 | 0.35 | 0.36 | 0.37 | 0.37 | |
| | 0.20 | | 0.25 | 0.26 | 0.27 | 0.28 | 0.30 | 0.31 | 0.32 | 0.34 | 0.35 | |
| 0.30 | 0.50 | 0.20 | 0.34 | 0.36 | 0.36 | 0.37 | 0.37 | 0.38 | 0.38 | 0.38 | 0.39 | |
| | 0.30 | | 0.29 | 0.30 | 0.31 | 0.32 | 0.33 | 0.34 | 0.34 | 0.35 | 0.36 | |
| | 0.20 | | 0.24 | 0.26 | 0.27 | 0.28 | 0.29 | 0.30 | 0.31 | 0.33 | 0.34 | |
| 0.00 | 0.00 | 0.00 | 0.21 | 0.21 | 0.21 | 0.21 | 0.21 | 0.21 | 0.21 | 0.21 | 0.21 | |
| Rating: 11W Photometrically tested without ceiling board. Multiply UF values by service correction factors Calculate in accordance with CIBSE Technical Memorandum NO.5 1980 | | | | | | | | | | | | |

Zonal Lumen

| Gamma [°] | I _{mean} [cd] | Zonal Flux [lm] | Sum Zonal Flux [lm] | Rel Zonal Flux [%] | Sum Rel Zonal Flux [%] |
|--------------|---------------------------|--------------------|------------------------|-----------------------|---------------------------|
| 0.0-1.0 | 167.3 | 0.2 | 0.2 | 0.02 | 0.02 |
| 1.0-2.0 | 167.3 | 0.5 | 0.6 | 0.06 | 0.07 |
| 2.0-3.0 | 167.3 | 0.8 | 1.4 | 0.09 | 0.17 |
| 3.0-4.0 | 167.3 | 1.1 | 2.6 | 0.13 | 0.30 |
| 4.0-5.0 | 167.3 | 1.4 | 4.0 | 0.17 | 0.46 |
| 5.0-6.0 | 167.3 | 1.8 | 5.8 | 0.20 | 0.67 |
| 6.0-7.0 | 167.3 | 2.1 | 7.8 | 0.24 | 0.91 |
| 7.0-8.0 | 167.3 | 2.4 | 10.2 | 0.28 | 1.18 |
| 8.0-9.0 | 167.3 | 2.7 | 12.9 | 0.31 | 1.50 |
| 9.0-10.0 | 167.3 | 3.0 | 16.0 | 0.35 | 1.85 |
| 10.0-11.0 | 167.3 | 3.3 | 19.3 | 0.39 | 2.24 |
| 11.0-12.0 | 167.2 | 3.7 | 23.0 | 0.42 | 2.66 |
| 12.0-13.0 | 167.2 | 4.0 | 26.9 | 0.46 | 3.12 |
| 13.0-14.0 | 167.1 | 4.3 | 31.2 | 0.50 | 3.61 |
| 14.0-15.0 | 166.9 | 4.6 | 35.8 | 0.53 | 4.15 |
| 15.0-16.0 | 166.8 | 4.9 | 40.7 | 0.57 | 4.71 |
| 16.0-17.0 | 166.6 | 5.2 | 45.9 | 0.60 | 5.31 |
| 17.0-18.0 | 166.3 | 5.5 | 51.4 | 0.64 | 5.95 |
| 18.0-19.0 | 166.0 | 5.8 | 57.1 | 0.67 | 6.62 |
| 19.0-20.0 | 165.7 | 6.1 | 63.2 | 0.70 | 7.32 |
| 20.0-21.0 | 165.3 | 6.3 | 69.6 | 0.74 | 8.05 |
| 21.0-22.0 | 164.9 | 6.6 | 76.2 | 0.77 | 8.82 |
| 22.0-23.0 | 164.4 | 6.9 | 83.1 | 0.80 | 9.62 |
| 23.0-24.0 | 163.9 | 7.2 | 90.3 | 0.83 | 10.45 |
| 24.0-25.0 | 163.3 | 7.4 | 97.7 | 0.86 | 11.31 |
| 25.0-26.0 | 162.7 | 7.7 | 105.4 | 0.89 | 12.20 |
| 26.0-27.0 | 162.1 | 7.9 | 113.3 | 0.92 | 13.12 |
| 27.0-28.0 | 161.3 | 8.2 | 121.5 | 0.95 | 14.06 |
| 28.0-29.0 | 160.6 | 8.4 | 129.9 | 0.97 | 15.04 |
| 29.0-30.0 | 159.7 | 8.6 | 138.5 | 1.00 | 16.04 |
| 30.0-31.0 | 158.8 | 8.8 | 147.3 | 1.02 | 17.06 |
| 31.0-32.0 | 157.9 | 9.0 | 156.4 | 1.05 | 18.11 |
| 32.0-33.0 | 156.9 | 9.2 | 165.6 | 1.07 | 19.18 |
| 33.0-34.0 | 155.9 | 9.4 | 175.1 | 1.09 | 20.27 |
| 34.0-35.0 | 154.8 | 9.6 | 184.7 | 1.11 | 21.38 |
| 35.0-36.0 | 153.6 | 9.8 | 194.5 | 1.13 | 22.52 |

C Plane (°): 0.0-360.0: 30.0
 Test Lab:
 Test Type: TYPE C
 Temperature: 25
 Operator: Jacky

Gamma Plane (°): 0.0-180.0: 1.0
 Test Device: GPM-1800B
 Distance: 9.028 m
 Humidity: 60%
 Inspector:

Zonal Lumen (Continue 1)

| Gamma [°] | I _{mean} [cd] | Zonal Flux [lm] | Sum Zonal Flux [lm] | Rel Zonal Flux [%] | Sum Rel Zonal Flux [%] |
|--------------|---------------------------|--------------------|------------------------|-----------------------|---------------------------|
| 36.0-37.0 | 152.4 | 9.9 | 204.4 | 1.15 | 23.67 |
| 37.0-38.0 | 151.2 | 10.1 | 214.5 | 1.17 | 24.84 |
| 38.0-39.0 | 149.9 | 10.2 | 224.7 | 1.18 | 26.02 |
| 39.0-40.0 | 148.5 | 10.4 | 235.1 | 1.20 | 27.22 |
| 40.0-41.0 | 147.1 | 10.5 | 245.6 | 1.21 | 28.43 |
| 41.0-42.0 | 145.7 | 10.6 | 256.1 | 1.23 | 29.66 |
| 42.0-43.0 | 144.2 | 10.7 | 266.8 | 1.24 | 30.90 |
| 43.0-44.0 | 142.6 | 10.8 | 277.6 | 1.25 | 32.14 |
| 44.0-45.0 | 141.0 | 10.8 | 288.4 | 1.25 | 33.40 |
| 45.0-46.0 | 139.4 | 10.9 | 299.3 | 1.26 | 34.66 |
| 46.0-47.0 | 137.7 | 11.0 | 310.3 | 1.27 | 35.93 |
| 47.0-48.0 | 135.9 | 11.0 | 321.3 | 1.27 | 37.20 |
| 48.0-49.0 | 134.1 | 11.0 | 332.3 | 1.28 | 38.48 |
| 49.0-50.0 | 132.3 | 11.0 | 343.3 | 1.28 | 39.75 |
| 50.0-51.0 | 130.4 | 11.0 | 354.4 | 1.28 | 41.03 |
| 51.0-52.0 | 128.5 | 11.0 | 365.4 | 1.28 | 42.31 |
| 52.0-53.0 | 126.5 | 11.0 | 376.4 | 1.27 | 43.58 |
| 53.0-54.0 | 124.5 | 11.0 | 387.4 | 1.27 | 44.85 |
| 54.0-55.0 | 122.4 | 10.9 | 398.3 | 1.27 | 46.12 |
| 55.0-56.0 | 120.3 | 10.9 | 409.2 | 1.26 | 47.38 |
| 56.0-57.0 | 118.2 | 10.8 | 420.0 | 1.25 | 48.63 |
| 57.0-58.0 | 116.0 | 10.7 | 430.7 | 1.24 | 49.87 |
| 58.0-59.0 | 113.8 | 10.6 | 441.3 | 1.23 | 51.10 |
| 59.0-60.0 | 111.5 | 10.5 | 451.9 | 1.22 | 52.32 |
| 60.0-61.0 | 109.2 | 10.4 | 462.3 | 1.21 | 53.53 |
| 61.0-62.0 | 106.9 | 10.3 | 472.6 | 1.19 | 54.72 |
| 62.0-63.0 | 104.5 | 10.2 | 482.8 | 1.18 | 55.90 |
| 63.0-64.0 | 102.1 | 10.0 | 492.8 | 1.16 | 57.06 |
| 64.0-65.0 | 99.7 | 9.9 | 502.7 | 1.14 | 58.20 |
| 65.0-66.0 | 97.2 | 9.7 | 512.4 | 1.12 | 59.33 |
| 66.0-67.0 | 94.7 | 9.5 | 521.9 | 1.10 | 60.43 |
| 67.0-68.0 | 92.2 | 9.3 | 531.2 | 1.08 | 61.51 |
| 68.0-69.0 | 89.7 | 9.1 | 540.4 | 1.06 | 62.57 |
| 69.0-70.0 | 87.1 | 8.9 | 549.3 | 1.04 | 63.61 |
| 70.0-71.0 | 84.5 | 8.7 | 558.1 | 1.01 | 64.62 |
| 71.0-72.0 | 82.0 | 8.5 | 566.6 | 0.99 | 65.61 |

C Plane (°): 0.0-360.0: 30.0
 Test Lab:
 Test Type: TYPE C
 Temperature: 25
 Operator: Jacky

Gamma Plane (°): 0.0-180.0: 1.0
 Test Device: GPM-1800B
 Distance: 9.028 m
 Humidity: 60%
 Inspector:

Zonal Lumen (Continue 2)

| Gamma [°] | I _{mean} [cd] | Zonal Flux [lm] | Sum Zonal Flux [lm] | Rel Zonal Flux [%] | Sum Rel Zonal Flux [%] |
|--------------|---------------------------|--------------------|------------------------|-----------------------|---------------------------|
| 72.0-73.0 | 79.4 | 8.3 | 574.9 | 0.96 | 66.57 |
| 73.0-74.0 | 76.8 | 8.1 | 583.0 | 0.93 | 67.50 |
| 74.0-75.0 | 74.2 | 7.8 | 590.8 | 0.91 | 68.41 |
| 75.0-76.0 | 71.7 | 7.6 | 598.4 | 0.88 | 69.29 |
| 76.0-77.0 | 69.2 | 7.4 | 605.8 | 0.85 | 70.15 |
| 77.0-78.0 | 66.7 | 7.1 | 612.9 | 0.83 | 70.97 |
| 78.0-79.0 | 64.3 | 6.9 | 619.9 | 0.80 | 71.77 |
| 79.0-80.0 | 62.0 | 6.7 | 626.5 | 0.77 | 72.55 |
| 80.0-81.0 | 59.7 | 6.5 | 633.0 | 0.75 | 73.29 |
| 81.0-82.0 | 57.6 | 6.2 | 639.2 | 0.72 | 74.02 |
| 82.0-83.0 | 55.6 | 6.0 | 645.3 | 0.70 | 74.72 |
| 83.0-84.0 | 53.7 | 5.9 | 651.1 | 0.68 | 75.40 |
| 84.0-85.0 | 52.0 | 5.7 | 656.8 | 0.66 | 76.05 |
| 85.0-86.0 | 50.5 | 5.5 | 662.3 | 0.64 | 76.69 |
| 86.0-87.0 | 49.1 | 5.4 | 667.7 | 0.62 | 77.32 |
| 87.0-88.0 | 47.9 | 5.2 | 673.0 | 0.61 | 77.92 |
| 88.0-89.0 | 46.9 | 5.1 | 678.1 | 0.60 | 78.52 |
| 89.0-90.0 | 46.0 | 5.0 | 683.2 | 0.58 | 79.10 |
| 90.0-91.0 | 45.3 | 5.0 | 688.1 | 0.58 | 79.68 |
| 91.0-92.0 | 44.7 | 4.9 | 693.0 | 0.57 | 80.25 |
| 92.0-93.0 | 44.1 | 4.8 | 697.9 | 0.56 | 80.80 |
| 93.0-94.0 | 43.6 | 4.8 | 702.6 | 0.55 | 81.36 |
| 94.0-95.0 | 43.1 | 4.7 | 707.3 | 0.55 | 81.90 |
| 95.0-96.0 | 42.7 | 4.7 | 712.0 | 0.54 | 82.44 |
| 96.0-97.0 | 42.3 | 4.6 | 716.6 | 0.53 | 82.98 |
| 97.0-98.0 | 41.8 | 4.5 | 721.2 | 0.53 | 83.50 |
| 98.0-99.0 | 41.3 | 4.5 | 725.6 | 0.52 | 84.02 |
| 99.0-100.0 | 40.7 | 4.4 | 730.0 | 0.51 | 84.53 |
| 100.0-101.0 | 40.2 | 4.3 | 734.4 | 0.50 | 85.03 |
| 101.0-102.0 | 39.8 | 4.3 | 738.6 | 0.49 | 85.53 |
| 102.0-103.0 | 39.3 | 4.2 | 742.9 | 0.49 | 86.02 |
| 103.0-104.0 | 38.8 | 4.1 | 747.0 | 0.48 | 86.49 |
| 104.0-105.0 | 38.3 | 4.1 | 751.1 | 0.47 | 86.97 |
| 105.0-106.0 | 37.8 | 4.0 | 755.1 | 0.46 | 87.43 |
| 106.0-107.0 | 37.3 | 3.9 | 759.0 | 0.45 | 87.88 |
| 107.0-108.0 | 36.9 | 3.9 | 762.8 | 0.45 | 88.33 |

C Plane (°): 0.0-360.0: 30.0
 Test Lab:
 Test Type: TYPE C
 Temperature: 25
 Operator: Jacky

Gamma Plane (°): 0.0-180.0: 1.0
 Test Device: GPM-1800B
 Distance: 9.028 m
 Humidity: 60%
 Inspector:

Zonal Lumen (Continue 3)

| Gamma [°] | I _{mean} [cd] | Zonal Flux [lm] | Sum Zonal Flux [lm] | Rel Zonal Flux [%] | Sum Rel Zonal Flux [%] |
|--------------|---------------------------|--------------------|------------------------|-----------------------|---------------------------|
| 108.0-109.0 | 36.4 | 3.8 | 766.6 | 0.44 | 88.77 |
| 109.0-110.0 | 35.9 | 3.7 | 770.3 | 0.43 | 89.20 |
| 110.0-111.0 | 35.4 | 3.6 | 774.0 | 0.42 | 89.62 |
| 111.0-112.0 | 34.9 | 3.6 | 777.5 | 0.41 | 90.03 |
| 112.0-113.0 | 34.4 | 3.5 | 781.0 | 0.40 | 90.43 |
| 113.0-114.0 | 33.9 | 3.4 | 784.4 | 0.39 | 90.83 |
| 114.0-115.0 | 33.4 | 3.3 | 787.8 | 0.39 | 91.21 |
| 115.0-116.0 | 32.9 | 3.3 | 791.0 | 0.38 | 91.59 |
| 116.0-117.0 | 32.4 | 3.2 | 794.2 | 0.37 | 91.96 |
| 117.0-118.0 | 31.9 | 3.1 | 797.3 | 0.36 | 92.32 |
| 118.0-119.0 | 31.3 | 3.0 | 800.3 | 0.35 | 92.67 |
| 119.0-120.0 | 30.8 | 2.9 | 803.2 | 0.34 | 93.01 |
| 120.0-121.0 | 30.2 | 2.9 | 806.1 | 0.33 | 93.34 |
| 121.0-122.0 | 29.6 | 2.8 | 808.9 | 0.32 | 93.66 |
| 122.0-123.0 | 28.9 | 2.7 | 811.5 | 0.31 | 93.97 |
| 123.0-124.0 | 28.3 | 2.6 | 814.1 | 0.30 | 94.27 |
| 124.0-125.0 | 27.9 | 2.5 | 816.6 | 0.29 | 94.56 |
| 125.0-126.0 | 27.5 | 2.5 | 819.1 | 0.28 | 94.84 |
| 126.0-127.0 | 27.1 | 2.4 | 821.5 | 0.28 | 95.12 |
| 127.0-128.0 | 26.6 | 2.3 | 823.8 | 0.27 | 95.39 |
| 128.0-129.0 | 26.1 | 2.2 | 826.1 | 0.26 | 95.65 |
| 129.0-130.0 | 25.6 | 2.2 | 828.2 | 0.25 | 95.90 |
| 130.0-131.0 | 25.0 | 2.1 | 830.3 | 0.24 | 96.14 |
| 131.0-132.0 | 24.5 | 2.0 | 832.3 | 0.23 | 96.37 |
| 132.0-133.0 | 23.9 | 1.9 | 834.3 | 0.22 | 96.60 |
| 133.0-134.0 | 23.3 | 1.9 | 836.1 | 0.21 | 96.81 |
| 134.0-135.0 | 22.8 | 1.8 | 837.9 | 0.21 | 97.02 |
| 135.0-136.0 | 22.3 | 1.7 | 839.6 | 0.20 | 97.22 |
| 136.0-137.0 | 21.8 | 1.6 | 841.2 | 0.19 | 97.41 |
| 137.0-138.0 | 21.3 | 1.6 | 842.8 | 0.18 | 97.59 |
| 138.0-139.0 | 20.7 | 1.5 | 844.3 | 0.17 | 97.77 |
| 139.0-140.0 | 20.2 | 1.4 | 845.8 | 0.17 | 97.93 |
| 140.0-141.0 | 19.6 | 1.4 | 847.1 | 0.16 | 98.09 |
| 141.0-142.0 | 19.1 | 1.3 | 848.4 | 0.15 | 98.24 |
| 142.0-143.0 | 18.5 | 1.2 | 849.7 | 0.14 | 98.38 |
| 143.0-144.0 | 17.8 | 1.2 | 850.8 | 0.13 | 98.52 |

C Plane (°): 0.0-360.0: 30.0
 Test Lab:
 Test Type: TYPE C
 Temperature: 25
 Operator: Jacky

Gamma Plane (°): 0.0-180.0: 1.0
 Test Device: GPM-1800B
 Distance: 9.028 m
 Humidity: 60%
 Inspector:

Zonal Lumen (Continue 4)

| Gamma [°] | I _{mean} [cd] | Zonal Flux [lm] | Sum Zonal Flux [lm] | Rel Zonal Flux [%] | Sum Rel Zonal Flux [%] |
|--------------|---------------------------|--------------------|------------------------|-----------------------|---------------------------|
| 144.0-145.0 | 17.2 | 1.1 | 851.9 | 0.13 | 98.64 |
| 145.0-146.0 | 16.5 | 1.0 | 852.9 | 0.12 | 98.76 |
| 146.0-147.0 | 15.8 | 1.0 | 853.9 | 0.11 | 98.87 |
| 147.0-148.0 | 15.0 | 0.9 | 854.8 | 0.10 | 98.98 |
| 148.0-149.0 | 14.4 | 0.8 | 855.6 | 0.10 | 99.07 |
| 149.0-150.0 | 13.9 | 0.8 | 856.4 | 0.09 | 99.16 |
| 150.0-151.0 | 13.3 | 0.7 | 857.1 | 0.08 | 99.24 |
| 151.0-152.0 | 12.7 | 0.7 | 857.8 | 0.08 | 99.32 |
| 152.0-153.0 | 12.1 | 0.6 | 858.4 | 0.07 | 99.39 |
| 153.0-154.0 | 11.7 | 0.6 | 859.0 | 0.07 | 99.46 |
| 154.0-155.0 | 11.2 | 0.5 | 859.5 | 0.06 | 99.52 |
| 155.0-156.0 | 10.6 | 0.5 | 860.0 | 0.06 | 99.58 |
| 156.0-157.0 | 10.1 | 0.4 | 860.4 | 0.05 | 99.63 |
| 157.0-158.0 | 9.7 | 0.4 | 860.8 | 0.05 | 99.67 |
| 158.0-159.0 | 9.1 | 0.4 | 861.2 | 0.04 | 99.72 |
| 159.0-160.0 | 8.6 | 0.3 | 861.5 | 0.04 | 99.76 |
| 160.0-161.0 | 8.1 | 0.3 | 861.8 | 0.03 | 99.79 |
| 161.0-162.0 | 7.6 | 0.3 | 862.1 | 0.03 | 99.82 |
| 162.0-163.0 | 7.2 | 0.2 | 862.3 | 0.03 | 99.85 |
| 163.0-164.0 | 6.7 | 0.2 | 862.5 | 0.02 | 99.87 |
| 164.0-165.0 | 6.2 | 0.2 | 862.7 | 0.02 | 99.89 |
| 165.0-166.0 | 5.8 | 0.2 | 862.9 | 0.02 | 99.91 |
| 166.0-167.0 | 5.4 | 0.1 | 863.0 | 0.02 | 99.93 |
| 167.0-168.0 | 5.0 | 0.1 | 863.1 | 0.01 | 99.94 |
| 168.0-169.0 | 4.7 | 0.1 | 863.2 | 0.01 | 99.95 |
| 169.0-170.0 | 4.4 | 0.1 | 863.3 | 0.01 | 99.96 |
| 170.0-171.0 | 4.1 | 0.1 | 863.4 | 0.01 | 99.97 |
| 171.0-172.0 | 3.8 | 0.1 | 863.4 | 0.01 | 99.98 |
| 172.0-173.0 | 3.5 | 0.0 | 863.5 | 0.01 | 99.98 |
| 173.0-174.0 | 3.2 | 0.0 | 863.5 | 0.00 | 99.99 |
| 174.0-175.0 | 3.0 | 0.0 | 863.6 | 0.00 | 99.99 |
| 175.0-176.0 | 2.8 | 0.0 | 863.6 | 0.00 | 100.00 |
| 176.0-177.0 | 2.6 | 0.0 | 863.6 | 0.00 | 100.00 |
| 177.0-178.0 | 2.4 | 0.0 | 863.6 | 0.00 | 100.00 |
| 178.0-179.0 | 2.3 | 0.0 | 863.6 | 0.00 | 100.00 |
| 179.0-180.0 | 2.3 | 0.0 | 863.6 | 0.00 | 100.00 |

C Plane (°):0.0-360.0: 30.0
 Test Lab:
 Test Type: TYPE C
 Temperature: 25
 Operator: Jacky

Gamma Plane (°):0.0-180.0: 1.0
 Test Device: GPM-1800B
 Distance: 9.028 m
 Humidity: 60%
 Inspector: